

REMARKS/ARGUMENTS

As the Examiner is aware, this case is part of an original “bulk filing” by Motorola. Special IDS procedures have been approved for these cases, and in this case several 1449’s have kindly been considered.

Support for the amendment to Claim 1 is found in Claims 5 and 6, now both cancelled.

The rejection over Hata alone is now moot in view of the incorporation of the subject matter of Claim 5 into Claim 1. The combination of Hata with Sugao fails to present a *prima facie* case.

As now claimed, the invention relates to a semiconductor structure comprising a monocrystalline substrate comprising a (001) semiconductor material having an orientation from about 2 degrees to about 6 degrees offset toward the (110) direction, an amorphous intermediate layer in contact with the monocrystalline substrate, a binary metal oxide material layer formed of at least one of BaO, SrO, MgO, CaO, ZrO<sub>2</sub>, CeO<sub>2</sub>, PrO<sub>2</sub>, YSZ and an oxide blend comprising at least two of Ba, Sr, Mg, Ca, Zr, Ce, and Pr in contact with said amorphous intermediate layer; and a monocrystalline material layer formed overlying the binary metal oxide, where the amorphous intermediate layer is formed by oxidation of the substrate during formation of said binary metal oxide material layer. This unique combination of substrate orientation, amorphous intermediate layer growth, and particular binary oxide gives rise to structures providing heretofore unknown device possibilities, and avoids step height mismatch problems provided by other materials. See, e.g., specification page 5. Neither Hara nor Sugao suggest this particular combination, either alone or taken in combination, as neither reference provides enough guidance to direct one of ordinary skill in the art to the particular combination of substrate, binary oxide, and amorphous intermediate layer growth conditions specified in the claim, or suggests or enables the final product

Application No. 09/842,734  
Reply to Office Action of December 23, 2004

structure now claimed or the benefits it provides. In view of this situation, the rejection over the combination of Hata with Sugao should be withdrawn.

With regard to the double patenting rejection, the Office is kindly holding these rejections in abeyance until the indication of allowable subject matter. In this regard, Applicant is now preparing their response to the double patenting rejections in this series of cases, which is expected to address all such rejections.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



---

Richard L. Treanor  
Attorney of Record  
Registration No. 36,379

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 06/04)